

In the Claims

Please rewrite claim 33 to read as follows:

W 33. (Amended) The method of claim 31, wherein said  $\alpha$ -MSH is attached to a polyclonal or monoclonal antibody, wherein said antibody acts as an agonist to the bound MC5r receptor.

Please add the following new claims 38-41:

38. (New) A method for down-regulating a T cell-mediated autoimmune response in autoimmune disease tissue site in an animal, comprising directly injecting  $\alpha$ -MSH or an analogue or derivative of  $\alpha$ -MSH comprising an  $\alpha$ -MSH receptor-binding portion thereof, into or near the autoimmune-diseased tissue site.

Q2 39. (New) A method for down-regulating a T-cell-mediated autoimmune response in a tissue site in an animal, comprising:

- (a) harvesting a tissue sample from the tissue site;
- (b) treating the harvested tissue sample with  $\alpha$ -MSH or an analogue or derivative of  $\alpha$ -MSH comprising an  $\alpha$ -MSH receptor-binding portion thereof; and
- (c) implanting the treated tissue sample into the animal.

40. (New) A method for down-regulating a T cell-mediated autoimmune response in autoimmune disease tissue site in an animal, said method comprising the steps of:

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- (a) providing said animal; and
  - (b) directly injecting an effective amount of  $\alpha$ -MSH or an analogue or derivative of  $\alpha$ -MSH comprising an  $\alpha$ -MSH receptor-binding portion thereof, into or near the autoimmune-diseased tissue site in an animal; wherein said effective amount is an amount sufficient to produce an *in situ* concentration in the range of about 30-100 pg/ml.

41. (New) A method for down-regulating a T-cell-mediated autoimmune response in a tissue site in an animal, comprising:

- (a) harvesting a tissue sample from the tissue site;
- (b) treating the harvested tissue sample with an effective amount of  $\alpha$ -MSH or an analogue or derivative of  $\alpha$ -MSH comprising an  $\alpha$ -MSH receptor-binding portion thereof; wherein said effective amount is an amount sufficient to produce an *in situ* concentration in the range of about 30-100 pg/ml; and
- (c) implanting the treated tissue sample into the animal.